

Reservoir 26, Greene Sullivan State Forest  
Greene and Sullivan Counties  
Supplemental Survey

Date of Survey: April 4, 2006

Biologist: David S. Kittaka

Survey Objective: Reservoir 26 is 42-acre impoundment located on Greene-Sullivan State Forest. The Greene-Sullivan State Forest property manager, Steve Siscoe, reported a fish kill at Reservoir 26 on August 22, 2005 (personnel communication). Property personnel identified and counted fish the first day. D-6 responded on August 23 to confirm and assess the cause of the fish kill. Hundreds of dead bass, bluegill, redear, and channel catfish were observed. For the first time, gizzard shad were found in Reservoir 26. Thousands of small dead gizzard shad were observed. The cause of the fish kill was attributed to low dissolved oxygen as a result of a dying algae bloom. Low dissolved oxygen readings over most of the lake confirmed this assumption.

A surplus of largemouth bass fingerlings was available in November 2005. There were 8,019 largemouth bass fingerlings (3.7 in average TL) stocked to supplement the predator population. Channel catfish are stocked biennially on odd years. A total of 1,043, 8-in fish was stocked in October of 2005.

A supplemental survey was conducted on April 4, 2006 to assess the survival of the stocked largemouth bass.

Methods: On April 4, 2006, Reservoir 26 was electrofished for 1.13 h and a total of 177 largemouth bass was collected. Forty-two percent of the bass collected were age-1. Approximately 48% of the age-1 fish were in the 3.5 in range. These were most likely stocked bass from the 2005 fall stocking. The bass catch rate was 157 bass/h. The PSD was 14. Only one legal size bass was collected. Bass ages 1 to 5 were represented. Other fish observed were redear and a few small bluegill. Only one gizzard shad was collected. No channel catfish were observed.

Summary: It appears the supplemental stocking of bass survived through the winter. During the survey, redear appeared healthy and many were observed in the 7-in range. A few smaller bluegill were observed. No channel catfish or shad were observed. The lake temperature was 55°F. This is not ideal temperature for bluegill to be in the shallows and susceptible to electrofishing.

The major concern at this time is the new gizzard shad population. It is unlikely one fish kill would eliminate all the gizzard shad in Reservoir 26. One could expect this once prolific panfish lake to reduce in production for bluegill and redear as the shad population matures and competes for forage with these species. Only one legal size bass was collected. Ages 1 to 4 bass were well represented in the collection and growth had improved since the last survey. The bass growth should improve in the short term with the reduced competition for forage and the new source of forage in gizzard shad. As the shad population matures, largemouth bass recruitment will also be negatively affected with the increased competition for forage.

#### Literature Cited

Siscoe S. 2005, Personnel communication, Property Manager, Greene Sullivan State Forest, Dugger, Indiana

Submitted by: David S. Kittaka, Fisheries Biologist  
Date: March, 2007

Approved by: \_\_\_\_\_  
Brian M. Schoenung, Fisheries Supervisor  
Date: July 6, 2007

**Lake:** Reservoir 26  
**Date:** 4/4/2006  
**Species:** Largemouth bass  
**Total number:** 177  
**Total weight:** 0  
**Length range:** 3.4 to 14.6

	TN	GN	EF
Total #	0	0	177
Effort	0	0	1.13
CPUE	#DIV/0!	#DIV/0!	157

Group	TL (in)	TN	GN	EF	TOTAL	RSD
Stock	8	0	0	103	103	-
Quality	12	0	0	14	14	14
Preferred	15	0	0	0	0	
Memorable	20	0	0	0	0	
Trophy	25	0	0	0	0	

Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)	Length group (in)	#	Mean weight (lbs)
1.0			17.5			34.0		
1.5			18.0			34.5		
2.0			18.5			35.0		
2.5			19.0			35.5		
3.0	3	0.00	19.5			36.0		
3.5	36	0.00	20.0			36.5		
4.0	7	0.00	20.5			37.0		
4.5	2	0.00	21.0			37.5		
5.0	8	0.00	21.5			38.0		
5.5	9	0.00	22.0			38.5		
6.0	7	0.00	22.5			39.0		
6.5	2	0.00	23.0			39.5		
7.0			23.5			40.0		
7.5			24.0			40.5		
8.0	2	0.00	24.5			41.0		
8.5	4	0.00	25.0			41.5		
9.0	7	0.00	25.5			42.0		
9.5	17	0.00	26.0			42.5		
10.0	18	0.00	26.5			43.0		
10.5	17	0.00	27.0			43.5		
11.0	12	0.00	27.5			44.0		
11.5	12	0.00	28.0			44.5		
12.0	5	0.00	28.5			45.0		
12.5	4	0.00	29.0			45.5		
13.0	4	0.00	29.5			46.0		
13.5			30.0			46.5		
14.0			30.5			47.0		
14.5	1	0.00	31.0			47.5		
15.0			31.5			48.0		
15.5			32.0			48.5		
16.0			32.5			49.0		
16.5			33.0			49.5		
17.0			33.5			50.0		

Lake: Reservoir 26  
Date: 4/4/2006  
Species: Largemouth bass

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	74	4.6	1.32	0.13	4.3	4.8
2	48	9.8	0.79	0.13	9.5	10.1
3	34	11.0	0.68	0.14	10.7	11.3
4	16	12.2	1.11	0.27	11.6	12.7
5	5	12.7	0.18	0.19	12.3	13.0